MITSUBISHI ELECTRIC

COOLING & HEATING

Live Better

M-SERIES & P-SERIES

Pocket Reference Guide

CounterPRO

Your #1 Support Team

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MITSUBISHI ELECTRIC

COOLING & HEATING

Live Better

Pre-visit Checklist	
✓	Verify appointment
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✓	Verify equipment in stock at distributor
✓	Credit application/financing options
✓	Local rebate information
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Inside Sales: **866-323-4822**
Service: **877-391-5550**
M-Series Applications: **800-433-4822** (press 3)
Parts: **678-376-2940**

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Advanced Technology.
Superior Comfort.

Split-zoning is the most popular type of air-conditioning technology in the world. Mitsubishi Electric takes split-zoning to a new level—our cooling and heating systems deliver year-round personal comfort even in the harshest of climates.

Mitsubishi Electric single- and multi-split systems also feature:

- Exceptional cooling and heating performance
- Automatic cool/heat changeover
- Maximum energy efficiency with higher SEER and HSPF ratings
- Easy installation
- Environmentally friendly R410A refrigerant
- Convenient temperature, fan, and airflow control
- Advanced filtration to help provide high air quality
- Whisper-quiet operation

M-Series components are up to 83 % recyclable

M-Series was green before green was cool.

ENERGY STAR®

Mitsubishi Electric systems are now more environmentally friendly than ever!

Use them to earn any available state, municipal, and utility rebates.

M-Series Qualifying Models*	ENERGY STAR
MUY-GE09NA w/ MSY-GE09NA-8	✓
MUY-GE12NA w/ MSY-GE12NA-8	✓
MUY-GE15NA-1 w/ MSY-GE15NA-8	✓
MUY-GE24NA w/ MSY-GE24NA	✓
MUZ-GE09NA w/ MSZ-GE09NA-8	✓
MUZ-GE12NA w/ MSZ-GE12NA-8	✓
MUZ-GE15NA-1 w/ MSZ-GE15NA-8	✓
MUZ-GE24NA w/ MSZ-GE24NA	✓
MUZ-FE09NA-1 w/ MSZ-FE09NA-8	✓
MUZ-FE12NA1 w/ MSZ-FE12NA-8	✓
MUZ-FE18NA w/ MSZ-FE18NA	✓
SUZ-KA09NA w/ SEZ-KD09NA4	✓
SUZ-KA12NA w/ SEZ-KD12NA4	✓
SUZ-KA15NA w/ SEZ-KD15NA4	✓
SUZ-KA18NA w/ SEZ-KD18NA4	✓
SUZ-KA09NA w/ SLZ-KA09NA	✓
SUZ-KA12NA w/ SLZ-KA12NA	✓

*Qualifying model as of print time

	ENERGY STAR
MXZ-2B20NA-1 with 2 non-ducted indoor units	✓
2 MSZ-GE09NA-8	✓
MXZ-3B24NA-1 with 3 non-ducted indoor units	✓
2 MSZ-GE06NA-8 and 1 MSZ-GE09NA-8 or 1 MSZ-GE12NA-8	✓

P-Series Qualifying Models*

			ENERGY STAR
PUZ-HA30NHA4	w/	PCA-A30KA4	✓
PUZ-HA30NHA4	w/	PEAD-A30AA4	✓
PUZ-HA30NHA4	w/	PKA-A30KA4	✓
PUZ-HA30NHA4	w/	PLA-A30BA4	✓
PUZ-HA36NHA4	w/	PCA-A36KA4	✓
PUZ-HA36NHA4	w/	PEAD-A36AA4	✓
PUZ-HA36NHA4	w/	PKA-A36KA4	✓
PUZ-HA36NHA4	w/	(2) PEA-A18AA4	✓
PUZ-HA36NHA4	w/	PLA-A36BA4	✓

*Qualifying model as of print time

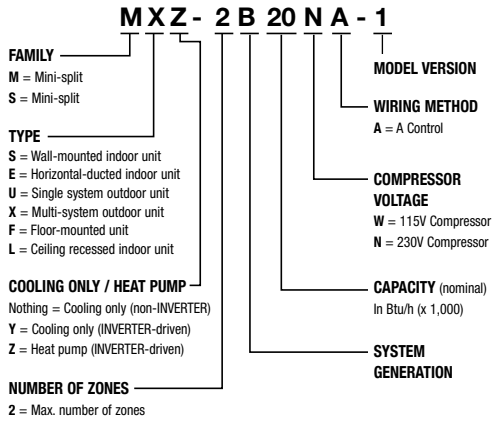
For tax credit details and forms,
visit www.mitsubishicomfort.com/taxcredit

For details on state and utility rebates,
visit www.dsireusa.org

Use your smart phone to scan the tag to the left and go to the page.

Get the free app for your smart phone at http://gettag.mobi

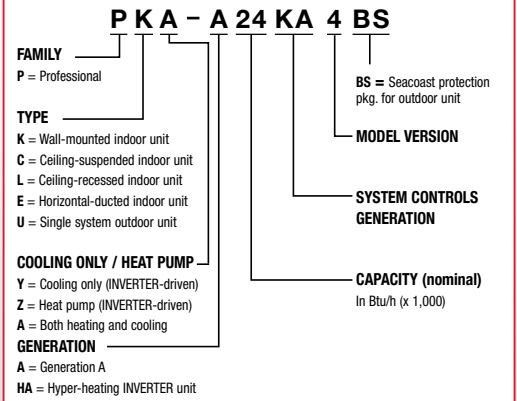
How to Read a Model Number



M-Series (9,000 - 48,000 Btu/h)

1. For residential and light commercial buildings (including conference rooms and storage areas)
2. User-friendly cooling and heating solutions for single-room and multi-room applications
3. H2i (hyper-heating INVERTER) outdoor units can provide high heating at lower ambient temperatures
4. 19 ENERGY STAR® models

How to Read a Model Number


P K A – A 24 KA 4 BS
FAMILY
P = Professional
TYPE
K = Wall-mounted indoor unit
C = Ceiling-suspended indoor unit
L = Ceiling-recessed indoor unit
E = Horizontal-ducted indoor unit
U = Single system outdoor unit
COOLING ONLY / HEAT PUMP
Y = Cooling only (INVERTER-driven)
Z = Heat pump (INVERTER-driven)
A = Both heating and cooling
GENERATION
A = Generation A
HA = Hyper-heating INVERTER unit
BS = Seacoast protection pkg. for outdoor unit
MODEL VERSION
SYSTEM CONTROLS GENERATION
CAPACITY (nominal)
In Btu/h (x 1,000)

P-Series (12,000 - 42,000 Btu/h)

1. For commercial, industrial, institutional, and large residential buildings - ideal in areas requiring year-round, low ambient cooling such as computer, elevator and equipment rooms
2. H2i (Hyper Heating Inverter) outdoor units can provide high heating at lower ambient temperatures
3. Long lineset lengths
4. Outside air intake on PLA, PCA and PEA/D models

Our standard line is now greener than ever!

GE Models

(9,000 - 22,500 Btu/h)

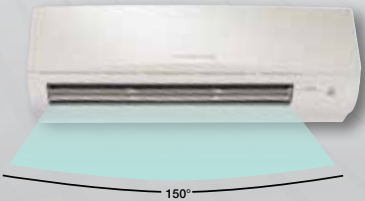
- Eight ENERGY STAR® models
- "Smart Set" programming button with SETBACK down to 50° F in heating (9,000 - 18,000 only)
- Washable 10-year catechin filter and anti-allergy enzyme filter
- Cooling-only and heat pump models
- Five fan speeds plus AUTO
- As quiet as 19 dB(A)

See page 12-15 for more information.

D Models

(30,700 - 34,600 Btu/h)

- Wide vane mode for precise directional airflow (also available on MSY/Z-GE24NA & MSZ-FE18NA)
- Powerful mode for quick 15 minute heating/cooling boost (also available on MSY/Z-GE24NA and MSZ-FE18NA)
- Cooling-only and heat pump models



With the WIDE VANE or SWING mode, available on the MSY(Z)-GE24/D30/36NA and MSZ-FE18NA, there is an option for seven horizontal airflow directions that provide 150° of airflow for greater conditioned air circulation.

High-efficiency, Hyper-Heating systems

FE Models

(9,000 - 18,000 Btu/h)

- Three ENERGY STAR® models
- i-see™ sensor automatically adjusts comfort conditioning by sensing temperature variations in the room and adjusting vane direction (MSZ-FE09 and MSZ-FE12 models only)
- 100% heating capacity at 5° F on MSZ-FE09NA and MSZ-FE18NA; 92% capacity at 5° F on MSZ-FE12NA
- Standard filters plus platinum catalyst deodorizing filter
- Four fan speeds plus AUTO
- As quiet as 22 dB(A)

See page 14 for more information.

MFZ Models

(9,000 - 18,000 Btu/h)

- Ideal for low-wall mounted applications
- Bi-directional airflow (top and bottom discharge)
- "Smart Set" programming button with SETBACK down to 50° F in heating
- Washable, 10-year catechin filter and anti-allergy enzyme filter
- **For use with MXZ multi-zone outdoor units only**

SEZ Models

(8,100 – 17,200 Btu/h)

- Small compact design (7-7/8" height)
- Adjustable static pressure
- Built-in condensate lift mechanism (22-1/2" lift)
- Rear return or bottom return (with optional accessory)
- Low operating sound pressure levels; as low as 23 dB(A)
- All four models ENERGY STAR® rated

See page 16-17 for more information.

SLZ Models

(8,400 – 15,000 Btu/h)

select systems

- Fits in 2x2 suspended ceiling grid
- 4-way airflow
- Built-in condensate lift mechanism (19-11/16" lift)
- Catechin deodorizing filter
- Two models ENERGY STAR® rated
- Outside air intake

MXZ Multi-Zone Heat Pumps

2:1, 3:1, 4:1, and 8:1 Zoned Solutions
(20,000-48,000 Btu/h)

- Three combinations qualify for ENERGY STAR®
- Precise, individual room comfort control
- Multiple indoor air handler options (ductless and ducted)
- Minimum of two indoor units must be installed

select systems

Outdoor Units:

MXZ-2B20NA-1 (2:1)
MXZ-3B24NA-1 (2:1, 3:1)
MXZ-3B30NA-1 (2:1, 3:1)
MXZ-4B36NA-1 (2:1, 3:1, 4:1)
MXZ-8B48NA (2:1 - 8:1)

See pages 18-19 for more information.

Indoor Units:

MSZ-FE09 -18NA
MSZ-GE06-24NA

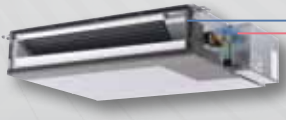
SLZ-KA09-15NA
PLA-A12-24BA4

MFZ-KA09-18NA
(for use with MXZ-B only)

SEZ-KD09-18NA4
PEAD-A24AA4

Diamond Comfort MXZ

MXZ-8B48NA
OUTDOOR UNIT



SEZ HORIZONTAL-DUCTED
INDOOR UNITS

SEZ-KD09-18NA4 Models

MFZ FLOOR-MOUNTED
INDOOR UNITS

MFZ-KA09-18NA Models
(for use with MXZ-B units only)

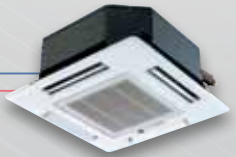
Multi-zone Systems

MSZ WALL-MOUNTED
INDOOR UNITS

MSZ-FE09-18NA
MSZ-GE06-24NA

PEAD HORIZONTAL-DUCTED
INDOOR UNITS

PEAD-A24AA4 Models



SLZ CEILING-RECESSED
INDOOR UNITS

SLZ-KA09-15NA
PLA-A12-24BA4 Models

MS/MSY

Model Specifications

(air conditioners)

	*Non-INVERTER Models			
Indoor Model #	*MS-A09WA	*MS-A12WA	MSY-GE09NA-8	MSY-GE12NA-8
Outdoor Model #	*MU-A09WA	*MU-A12WA	MUY-GE09NA	MUY-GE12NA
Rated Cooling Capacity (Btu/h)	9,500	12,000	9,000	12,000
Cooling Capacity Range (Btu/h)	9,500	12,000	3,800-12,200	3,800-13,600
SEER	13	13	21	20.5
Lineset Size (Liquid x Gas)	1/4" x 3/8"	1/4" x 1/2"	1/4" x 3/8"	1/4" x 3/8"
Lineset Length/ Height Max. Separation	65'/35'	65'/35'	65'/40'	65'/40'
Breaker Size	15 AMP	20 AMP	15 AMP	15 AMP

*Use ICM-326HM-1 Head Pressure Controller Accessory for Non-INVERTER Models (for low outdoor ambient cooling only).

MUY-GE15NA-1

MSY-GE15NA-8

	MSY-GE15NA-8	MSY-GE18NA-8	MSY-GE24NA	MSY-D30NA-8	MSY-D36NA-8
	MUY-GE15NA-1	MUY-GE18NA-1	MUY-GE24NA	MUY-D30NA-1	MUY-D36NA-1
	14,000	17,200	22,500	30,700	34,600
	3,100-18,200	3,700-18,700	8,200-31,400	9,800-30,700	9,800-34,600
	21	19.2	19	16	15.1
	1/4" x 1/2"	1/4" x 1/2"	3/8" x 5/8"	3/8" x 5/8"	3/8" x 5/8"
	65'/40'	100'/50'	100'/50'	100'/50'	100'/50'
	15 AMP	15 AMP	20 AMP	25 AMP	25 AMP

M-Series units are pre-charged for up to a 25' line set.

MSZ/MUZ

Model Specifications
(heat pumps)

Indoor Model #	MSZ-FE09NA-8	MSZ-FE12NA-8	MSZ-FE18NA	MSZ-GE09NA-8
Outdoor Model #	MUZ-FE09NA-1	MUZ-FE12NA1	MUZ-FE18NA	MUZ-GE09NA
Rated Cooling Capacity (Btu/h)	9,000	12,000	18,000	9,000
Cooling Capacity Range (Btu/h)	2,800-9,000	2,800-12,000	8,200-25,200	3,800-12,200
Heating Capacity Range at 47°F (Btu/h)	3,000-18,000	3,000-21,000	7,500-29,700	4,500-14,100
Max. Heating Capacity at 17°F (Btu/h)	12,500	13,600	19,300	8,700
Max. Heating Capacity at 5°F (Btu/h)	10,900	12,500	21,600	7,061
SEER/HSPF	26/10	23/10.5	20.2/10.3	21/10
Lineset Size (Liquid x Gas)	1/4" x 3/8"	1/4" x 3/8"	3/8" x 5/8"	1/4" x 3/8"
Lineset Length/ Height Max. Separation	65'/40'	65'/40'	100'/50'	65'/40'
Breaker Size	15 AMP	15 AMP	20 AMP	15 AMP

Test conditions are based on AHRI 210/240.

MSZ-FE09NA-8

MUZ-FE09NA-1

MSZ-GE12NA-8	MSZ-GE15NA-8	MSZ-GE18NA-8	MSZ-GE24NA	MSZ-D30NA-8	MSZ-D36NA-8
MUZ-GE12NA	MUZ-GE15NA-1	MUZ-GE18NA-1	MUZ-GE24NA	MUZ-D30NA-1	MUZ-D36NA-1
12,000	14,000	17,200	22,500	30,700	33,200
3,800-13,600	3,100-18,200	3,700-18,700	8,200-31,400	9,800-30,700	9,800-33,200
5,500-18,100	4,800-20,900	3,500-25,200	7,500-36,900	8,700-34,000	8,700-36,000
11,200	15,900	17,200	24,600	20,800	22,800
9,194	13,022	13,562	21,160	16,305	19,090
20.5/10	21/10	19.2/10	19/10	14.5/8.2	14.5/8.2
1/4" x 3/8"	1/4" x 1/2"	1/4" x 1/2"	3/8" x 5/8"	3/8" x 5/8"	3/8" x 5/8"
65'/40'	65'/40'	100'/50'	100'/50'	100'/50'	100'/50'
15 AMP	15 AMP	15 AMP	20 AMP	25 AMP	25 AMP

M-Series units are pre-charged for up to a 25' line set.

SEZ/SLZ Models Specifications
(heat pumps)

SUZ-KA15NA

SEZ-KD15NA4

Indoor Model #	SEZ-KD09NA4	SEZ-KD12NA4	SEZ-KD15NA4
Outdoor Model #	SUZ-KA09NA	SUZ-KA12NA	SUZ-KA15NA
Rated Cooling Capacity (Btu/h)	8,100	11,500	14,100
Cooling Capacity Range (Btu/h)	3,800-10,900	3,800-13,300	3,800-17,000
Heating Capacity Range at 47°F (Btu/h)	4,800-14,100	4,800-16,400	4,800-21,100
Max Heating Capacity at 17°F (Btu/h)	6,700	9,000	11,900
SEER/HSPF	15/10	16/10	15.5/10
Lineset Size (Liquid x Gas)	1/4" x 3/8"	1/4" x 3/8"	1/4" x 1/2"
Lineset Length/Height Max. Separation	65'/40'	65'/40'	65'/40'
Breaker Size (MOCP)	15 AMP	15 AMP	15 AMP

SLZ-KA15NA

ALL CONTROLLERS
ORDERED SEPARATELY

MHK1

REDLINK
Wireless Technology

	SEZ-KD18NA4	SLZ-KA09NA	SLZ-KA12NA	SLZ-KA15NA
	SUZ-KA18NA	SUZ-KA09NA	SUZ-KA12NA	SUZ-KA15NA
	17,200	8,400	11,100	15,000
	3,800-19,000	3,100-10,900	3,400-13,300	3,800-17,700
	4,800-24,900	3,100-14,100	3,100-17,100	3,100-22,200
	13,100	6,200	8,300	12,000
	17.5/10	15/9.6	15.4/9.6	16/9.6
	1/4" x 1/2"	1/4" x 3/8"	1/4" x 3/8"	1/4" x 1/2"
	100'/50'	65'/40'	65'/40'	65'/40'
	15 AMP	15 AMP	15 AMP	15 AMP

MXZ

Model Specifications

(multi-zone heat pumps)

Outdoor Model #	MXZ-2B20NA-1	MXZ-3B24NA-1	MXZ-3B30NA-1
Rated Cooling Capacity (Btu/h)	18,000	22,000	28,400
Cooling Capacity Range (Btu/h)	7,800-20,000	12,600-25,500	12,600-28,400
Heating Capacity Range at 47°F (Btu/h)	8,500-25,500	11,400-30,600	11,400-36,000
Max. Heating Capacity at 17°F (Btu/h)	14,500	18,800	18,800
Max. Heating Capacity at 5°F (Btu/h)	11,113	13,336	15,704
Individual/Combined Max. Lineset Length	82'/164'	82'/230'	82'/230'
Max. Vertical Separation	49'*/33'	49'*/33'	49'*/33'
Breaker Size	20 AMP	20 AMP	20 AMP
SEER/HSPF non-ducted	18.0/8.9	17.5/9.3	17.5/10.5
SEER/HSPF mixed	16.75/8.7	16.25/8.9	16/10
SEER/HSPF ducted	15.5/8.5	15.0/8.5	14.5/9.5

See page 3 for ENERGY STAR® qualifying combinations.
Refer to submittal document for combination performance.

* 49' applies when outdoor unit is installed below indoor unit.

** 66' applies when outdoor unit is installed below indoor unit.

	MXZ-4B36NA-1	MXZ-8B48NA
	35,400	48,000
	12,600-36,400	12,000-54,000
	11,400-43,000	12,000-60,000
	24,600	36,600
	18,671	32,400
	82'/230'	230'/377'
	49'*/33'	66'**/98'
	25 AMP	50 AMP
	18.0/9.3	15.0/8.7
	16.5/9.2	14.8/8.8
	15.0/9.0	14.7/8.9

MXZ-8B48NA

BRANCH BOX FOR INDOOR UNIT CONNECTIONS

Each MXZ-8B48NA requires at least one branch box with a maximum of two. Two sizes are available: 3-branch (PAC-AKA31BC) and 5-branch (PAC-AKA51BC, shown above).

SEE PAGE 20 FOR INDOOR UNIT CONNECTION CAPABILITIES

See section 5 of installation manual for full details on MXZ-8B48NA refrigeration piping lengths.

MXZ-Series Port Adapters

PORT ADAPTER GUIDE

Available Indoor Units	Line set size
MSZ Wall-mounted	
MSZ-GE06NA-8	3/8" gas x 1/4" liquid
MSZ-GE09NA-8	3/8" gas x 1/4" liquid
MSZ-FE09NA-8	3/8" gas x 1/4" liquid
MSZ-GE12NA-8	3/8" gas x 1/4" liquid
MSZ-FE12NA-8	3/8" gas x 1/4" liquid
MSZ-GE15NA-8	1/2" gas x 1/4" liquid
MSZ-FE18NA	5/8" gas x 3/8" liquid
MSZ-GE18NA-8	1/2" gas x 1/4" liquid
MSZ-GE24NA	5/8" gas x 3/8" liquid
MFZ Floor-standing	
MFZ-KA09NA	3/8" gas x 1/4" liquid
MFZ-KA12NA	3/8" gas x 1/4" liquid
MFZ-KA18NA	1/2" gas x 1/4" liquid
PLA Ceiling-recessed	
PLA-A12BA4	1/2" gas x 1/4" liquid
PLA-A18BA4	1/2" gas x 1/4" liquid
PLA-A24BA4	5/8" gas x 3/8" liquid
PCA Ceiling-suspended	
PCA-A24KA4	5/8" gas x 3/8" liquid
SLZ Ceiling-recessed	
SLZ-KA09NA	3/8" gas x 1/4" liquid
SLZ-KA12NA	3/8" gas x 1/4" liquid
SLZ-KA15NA	1/2" gas x 1/4" liquid
SEZ/PEAD Horizontal-ducted	
SEZ-KD09NA4	3/8" gas x 1/4" liquid
SEZ-KD12NA4	3/8" gas x 1/4" liquid
SEZ-KD15NA4	1/2" gas x 1/4" liquid
SEZ-KD18NA4	1/2" gas x 1/4" liquid
PEAD-A24AA4	5/8" gas x 3/8" liquid

PORT ADAPTERS PART NUMBERS

MAC-A454JP-E	3/8" x 1/2"
MAC-A455JP-E	1/2" x 3/8"
MAC-A456JP-E	1/2" x 5/8"
PAC-SG76RJ-E	3/8" x 5/8"
PAC-493PI	1/4" x 3/8"

MXZ-2B20NA-1
Port A = 3/8" gas x 1/4" liquid
Port B = 3/8" gas x 1/4" liquid

MXZ-3B24NA-1
Port A = 1/2" gas x 1/4" liquid
Port B = 3/8" gas x 1/4" liquid
Port C = 3/8" gas x 1/4" liquid

MXZ-3B30NA-1
Port A = 1/2" gas x 1/4" liquid
Port B = 3/8" gas x 1/4" liquid
Port C = 3/8" gas x 1/4" liquid

MXZ-4B36NA-1
Port A = 1/2" gas x 1/4" liquid
Port B = 3/8" gas x 1/4" liquid
Port C = 3/8" gas x 1/4" liquid
Port D = 3/8" gas x 1/4" liquid

MXZ-8B48NA	
Branch Box	Branch Box
PAC-AKA31BC	PAC-AKA51BC
PORT A = 3/8" gas x 1/4" liquid	PORT A = 3/8" gas x 1/4" liquid
PORT B = 3/8" gas x 1/4" liquid	PORT B = 3/8" gas x 1/4" liquid
PORT C = 3/8" gas x 1/4" liquid	PORT C = 3/8" gas x 1/4" liquid
	PORT D = 3/8" gas x 1/4" liquid
	PORT E = 1/2" gas x 1/4" liquid

Notes for application:

* Check the lineset sizes for your indoor selected models.
* Select the branch box or boxes needed for your application.
* Compare indoor unit lineset sizes to branch box or outdoor unit port sizes.
* Connect 15K + indoor units to the larger 1/2" port on the PAC-AKA51BC branch box or outdoor unit.
* Adapt lineset size with appropriate port adapter from above list.
* When using the PLA-A24BA4, PEAD-A24AA4, PCA-A24KA4 MSZ-FE18NA or MSZ-GE24NA two port adapters will be needed 1-MAC-A456JP-E (1/2" x 5/8") or 1-PAC-SG76RJ-E (3/8" x 5/8") and 1-PAC493PI (1/4" x 3/8").

Cooling Capacity Correction Factors

Model	Refrigerant piping length (one way)		
	25 ft (std)	40 ft	65 ft
MU-A09WA MU-A12WA MUZ-GE09NA MUY-GE09NA MUZ-GE12NA MUY-GE12NA MUZ-GE15NA-1 MUY-GE15NA-1 MUZ-FE09NA-1 MUZ-FE12NA1 SUZ-KA09NA SUZ-KA12NA SUZ-KA15NA	Capacity x 1.0	Capacity x 0.954	Capacity x 0.878

Model	Refrigerant piping length (one way)			
	25 ft (std)	40 ft	65 ft	100 ft
MUZ-GE18NA-1 MUY-GE18NA-1 MUZ-D30NA-1 MUZ-D36NA-1 MUY-D30NA-1 MUY-D36NA-1 SUZ-KA18NA	Capacity x 1.0	Capacity x 0.954	Capacity x 0.878	Capacity x 0.713
MUZ-GE24NA MUY-GE24NA MUZ-FE18NA	Capacity x 1.0	Capacity x 0.954	Capacity x 0.878	Capacity x 0.771

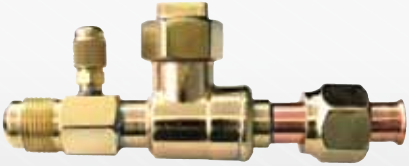
M-Series Air Outlet Coverage Range*

Model Number	Mode	Function	Airflow (CFM)	Coverage (ft)
MS-A09WA	FAN	DRY	335	25.4
	COOL	WET	300	22.8
MS-A12WA	FAN	DRY	406	30.6
	COOL	WET	363	27.5
MSZ-GE06NA-8 MSY-GE09NA-8 MSZ-GE09NA-8 MSY-GE12NA-8 MSZ-GE12NA-8	HEAT	DRY	406	29.5
	COOL	WET	286	21.0
MSY-GE15NA-8 MSZ-GE15NA-8	HEAT	DRY	463	33.5
	COOL	WET	385	28.0
MSY-GE18NA-8 MSZ-GE18NA-8	HEAT	DRY	512	36.9
	COOL	WET	385	28.0
MSY-GE24NA MSZ-GE24NA	HEAT	DRY	738	36.9
	COOL	WET	661	33.2
MSZ-FE09NA-8	HEAT	DRY	381	27.7
	COOL	WET	307	22.4
MSZ-FE12NA-8	HEAT	DRY	420	30.4
	COOL	WET	350	25.4
MSZ-FE18NA	HEAT	DRY	738	36.9
	COOL	WET	661	33.2
MSY-D30NA-8 MSZ-D30NA-8 MSY-D36NA-8 MSZ-D36NA-8	HEAT	DRY	848	45.0
	COOL	WET	763	40.7
MFZ-KA09NA	HEAT	DRY	332	15.4
	COOL	WET	303	14.2
MFZ-KA12NA	HEAT	DRY	335	15.6
	COOL	WET	309	14.5
MFZ-KA18NA	HEAT	DRY	434	20.0
	COOL	WET	379	17.5
SLZ-KA09NA	HEAT	DRY	350	12.1
	COOL	WET	320	11.1
SLZ-KA12NA	HEAT	DRY	390	13.5
	COOL	WET	350	12.1
SLZ-KA15NA	HEAT	DRY	390	13.5
	COOL	WET	350	12.1

*Air coverage represents the distance with one ft/sec air speed when blowing out horizontally from the unit operating at the High fan speed. This is only a general guideline; actual coverage depends on size and layout of the room.

DIAMONDBACK™

BV-Series Ball Valves



- **Engineered for Single-split and Multi-split HVAC Units**
- **Full Port Design**
- **700 PSIG Rated**
- **R410A Compatible**
- **Flare Connections**

C UL US

LISTED 891N REFRIGERANT VALVE

- Sizes available: 1/4"; 3/8"; 1/2"; 5/8".
- Fully assembled from the factory
- Furnace brazed and pressure tested.
- Each ball valve is equipped with a Schrader Valve for refrigerant service.
- Design working pressure: 700 PSIG.
- Temperature range: -40˚ F to +325˚ F (-40˚ C to +149˚ C).
- Forged brass body and seal cap.
- Teflon® seals and gaskets (no synthetic O-rings).
- Seal cap design permits valve operation without removal of seal cap.
- Suitable for use with R-11, R-22, R-123, R-125, R-134A, R-236FA, R-4202A, R-402B, R-404A, R-407C, R-410A, R-500, R-502, and R-507.
- One-year limited materials and workmanship warranty on Ball Valves.

It is very important that all contractors follow proper procedure and size units based on a Manual J calculation. A load calculation takes into account all the factors that cause the building to lose heat in the winter and gain heat in the summer. Some of the factors taken into consideration are exposed walls, insulation, windows, doors, and even the direction the building faces.

Inverter technology has changed the way heat pumps are used. Because the inverter can vary the capacity of the system, we can now size units based on the largest load, which in many cases may be the heat load. When single speed compressors are sized on heat load and changed over to cooling, the units can be grossly over-sized. The result is very little dehumidification and comfort problems.

Using charts like the ones below from the technical service manual, you can check the equipment capacity at the design temperatures for heating and cooling. If these values fall within both the heating and cooling capacity ranges of the system, you can select that system with confidence.

MSZ/MUZ-FE09NA

HEATING CAPACITY

Outdoor Temperature Degrees (°F)	-13.0	-4.0	5.0	14.0	23.0	32.0	41.0	50.0
Heating Capacity (Btu/h)	6,740	8,978	1,1216	13,453	15,090	16,469	17,848	21,338
Ratio	0.62	0.82	1.03	1.23	1.38	1.51	1.64	1.96
Percent Heating Capacity	62%	82%	100%	100%	100%	100%	100%	100%

COOLING CAPACITY

Indoor Air IWB (°F)	Outdoor intake air DB temperature (°F)											
	85			95			105			115		
	TC	SHC	TPC	TC	SHC	TPC	TC	SHC	TPC	TC	SHC	TPC
71	10.3	6.5	0.63	9.7	6.1	0.68	9.0	5.6	0.72	8.3	5.2	0.75
67	9.7	7.4	0.60	9.0	6.8	0.65	8.4	6.4	0.69	7.7	5.8	0.72
63	9.1	8.1	0.58	8.5	7.6	0.62	7.7	6.9	0.66	7.0	6.3	0.69

Notes: IWB: Intake air wet-bulb temperature
TC: Total capacity
SHC: Sensible heat capacity
TPC: Total power consumption (kW)

MHK1 Wireless
Remote Controller Kit

Exclusive for INVERTER-driven
M- and P-Series Systems

MRCH1 Wireless Remote Controller

- Backlit, easy-to-read display
- Compatible with MCCH1 Portable Central Controller
- Enabled with RedLINK™ reliability

MIFH1 Wireless Receiver

- Required for MRCH1 Wireless Remote Controller
- Dual set-point control with system changeover
- Enabled with RedLINK reliability

Note:
Compatible with all current INVERTER models

MHK1
Specifications

Function	Description
ON/OFF	On/Off operation for a single indoor unit
Operation Mode	Cool / Drying / Auto / Heat / Fan only Available operation modes dependent upon connected system.
Temperature Setting	Set temperature from 50° F – 87° F depending on operation mode and connected system
System Changeover Deadband Value	2-8° F
Schedule Operation	5-2, 5-1-1
Fan Speed Setting	Hi/Mid-2/Mid-1/Low/Auto. Available fan speed settings dependant upon connected system.
Air Flow Direction Setting	Airflow angles: 100° - 80° - 60° - 40° and oscillate. Available air flow direction settings dependent upon connected system.
Permit/Prohibit Function	Individual prohibit operations for each remote controller function (ON/OFF, Set Temperature, and Mode).
Space Temperature	Displays the measured space temperature.
Error Indication	Displays error code.
Display Outside Temperature and Humidity	Requires optional MOS1 Outside Air Sensor
Dimensions - (W x D x H)	Remote Controller: 5-3/16" x 1-1/2" x 3-9/16" Receiver: 3-1/4" x 1-5/16" x 6-7/16"
Operating Ambient Temperature	Remote Controller: 32 - 120° F Receiver: -40 – 165° F
Operating Ambient Humidity	Remote Controller: 5 percent - 90 percent RH (non-condensing)Receiver: 5 percent - 90% RH (non-condensing)
Power Supply	2 AA batteries (included)

Wireless

Standard for M-Series wall-mounted and floor-mounted systems and optional for P-Series indoor units

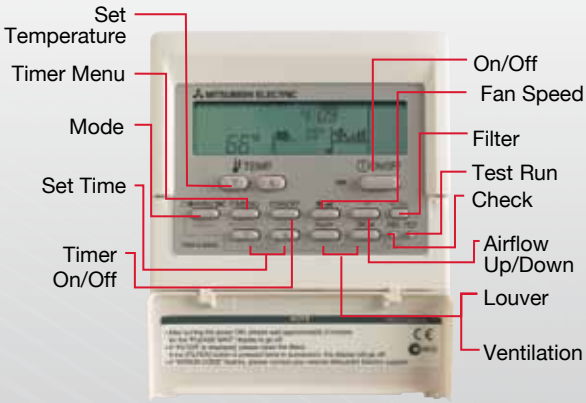
Powerful Mode and Wide Vane Control buttons are available on models MSZ-FE18NA and MSY(Z)-GE24/D30/D36NA

GE model remote shown, models vary

Wired

Optional, wired controller for all M-Series INVERTER indoor units. M-Series wall-mounted and floor-mounted systems require MAC-397IF adapter

PAR-21MAA Wired Controller



Connect to cooling-only PUY and heat pump PUZ INVERTER-driven compressor outdoor units.

PKA Wall-mounted Series

Cooling-only and Heat Pumps

12,000 to 34,200 Btu/h

- Provides cooling and heating in a wide range of capacities
- Auto flap shutter
- Auto fan control
- Easy-clean washable filters
- Multiple controller options

PCA Ceiling-suspended Series

Cooling-only and Heat Pumps

24,000 to 42,000 Btu/h

- i-see™ Sensor optional
- Knockout for ventilation air
- Auto fan speed control
- Multiple controller options
- Optional, high-efficiency filter

PLA Ceiling-recessed Series

Cooling-only and Heat Pumps

12,000 to 42,000 Btu/h

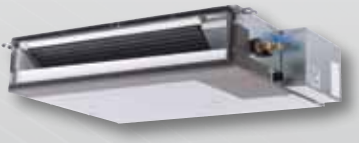
- Built-in condensate lift mechanism (33" lift)
- Branch duct outlet
- i-see™ Sensor optional
- Knockout for ventilation air
- Multiple controller options

PEA/PEAD Horizontal Ducted Series

Cooling-only and Heat Pumps

12,000 to 42,000 Btu/h

- Automatic fan speed control
- Built-in condensate lift mechanism (21 11/16" PEA, 27 9/16" PEAD lift)
- Multiple controller options
- Adjustable static pressure



Indoor Model #	PEA-A12AA4 PKA-A12HA4 PLA-A12BA4	PEA-A18AA4 PKA-A18HA4 PLA-A18BA4	PEAD-A24AA4 PKA-A24KA4 PLA-A24BA4 PCA-A24KA4
Outdoor Model #	PUY-A12NHA4(-BS)	PUY-A18NHA4(-BS)	PUY-A24NHA4(-BS)
Cooling Capacity Range (Btu/h)	6,000-12,000	8,000-18,000	12,000-24,000
SEER Range	13.5-15.2	14.2-15.3	13.6-17
Lineset Size (Liquid x Gas)	1/4" x 1/2"	1/4" x 1/2"	3/8" x 5/8"
Lineset Length/ Height Max Separation	100'/100'	100'/100'	165'/100'
Breaker Size (MOCP)	15 AMP	20 AMP	30 AMP

BS= Seacoast Protection Coating

P-Series models 12k-36k Btu/h are pre-charged for up to a 70' line set. PUY/Z-A42NHA and H2i models are pre-charged for up to a 100' line set.

	PEAD-A30AA4 PKA-A30KA4 PLA-A30BA4 PCA-A30KA4	PEAD-A36AA4 PKA-A36KA4 PLA-A36BA4 PCA-A36KA4	PEAD-A42AA4 PLA-A42BA4 PCA-A42KA4
	PUY-A30NHA4(-BS)	PUY-A36NHA4(-BS)	PUY-A42NHA4(-BS)
	12,000-30,000	12,000-35,000	18,000-42,000
	13.6-15.5	14-15	13.8-15.8
	3/8" x 5/8"	3/8" x 5/8"	3/8" x 5/8"
	165'/100'	165'/100'	165'/100'
	40 AMP		

Indoor Model #	PEA-A18AA4 PKA-A18HA4 PLA-A18BA4	PEAD-A24AA4 PKA-A24KA4 PLA-A24BA4 PCA-A24KA4	PEAD-A30AA4 PKA-A30KA4 PLA-A30BA4 PCA-A30KA4
Outdoor Model #	PUZ-A18NHA4 (-BS)	PUZ-A24NHA4 (-BS)	PUZ-A30NHA4 (-BS)
Cooling Capacity Range (Btu/h)	8,000-18,000	12,000-24,000	12,000-30,000
Heating Capacity Range (Btu/H)	8,000-20,000	12,000-28,000	12,000-34,000
SEER/ HSPF Range	14.2-15.3/ 9.5-10.0	13.7-17/ 8.5-10.2	13.6-15.5/ 8.7-9.4
Lineset Size (Liquid x Gas)	1/4" x 1/2"	3/8" x 5/8"	3/8" x 5/8"
Lineset Length/ Height Max Separation	100'/100'	165'/100'	165'/100'
Breaker Size (MOCP)	20 AMP	30 AMP	40 AMP

BS= Seacoast Protection Coating

P-Series models 12k-36k Btu/h are pre-charged for up to a 70' line set. PUY/Z-A42NHA and H2i models are pre-charged for up to a 100' line set.

	PEAD-A36AA4 PKA-A36KA4 PLA-A36BA4 PCA-A36KA4	PEAD-A42AA4 PLA-A42BA4 PCA-A42KA4	PEAD-A30AA4 PKA-A30KA4 PLA-A30BA4 PCA-A30KA4	(2) PEA-A18AA4 PEAD-A36AA4 PKA-A36KA4 PLA-A36BA4 PCA-A36KA4
	PUZ-A36NHA4 (-BS)	PUZ-A42NHA4 (-BS)	PUZ-HA30NHA4 (-BS)	PUZ-HA36NHA4 (-BS)
	12,000-35,000	18,000-42,000	18,000-30,000	18,000-36,000
	12,000-38,000	18,000-48,000	18,000-34,000	18,000-40,000
	14-15/ 9.3-10.2	13.8-15.8/ 9.3-10.2	15.6-16.5/ 9.3-9.5	16.7-17/ 10-10.4
	3/8" x 5/8"	3/8" x 5/8"	3/8" x 5/8"	3/8" x 5/8"
	165'/100'	165'/100'	245'/100'	245'/100'
	40 AMP			

Cooling Capacity Correction Factor (x capacity)

Outdoor Unit	Refrigerant piping length (one way)					
	16 ft	33 ft	70 ft	100 ft	130 ft	165 ft
PUY-A12/18NHA4 PUZ-A18NHA4	1.00	0.985	0.967	0.931	–	–
PUY-A24-36NHA4 PUZ-A24-36NHA4	1.00	0.988	0.966	0.946	0.929	0.913
PUY-A42NHA4 PUZ-A42NHA4	1.00	0.985	0.967	0.931	0.908	0.886

Hyper-Heating INVERTER (H2i®)

Cooling Capacity Correction Factors (x capacity)

Outdoor Unit	Refrigerant piping length (one way)				
	16 ft	33 ft	70 ft	100 ft	130 ft
PUZ-HA30NHA4 PUZ-HA36NHA4	1.00	0.985	0.957	0.931	0.908

Heating Capacity Correction Factors (x capacity)

Outdoor Unit	Refrigerant piping length (one way)				
	16 ft	33 ft	70 ft	100 ft	130 ft
PUZ-HA30NHA4 PUZ-HA36NHA4	1.00	0.997	0.991	0.985	0.979

Heating Capacity Correction Factors (x capacity)

Outdoor Unit	Refrigerant piping length (one way)					
	16 ft	33 ft	70 ft	100 ft	130 ft	165 ft
PUZ-A18NHA4	1.00	0.997	0.991	0.985	–	–
PUZ-A24-36NHA4	1.00	0.997	0.991	0.985	0.979	0.973
PUZ-A42NHA4	1.00	0.997	0.991	0.985	0.979	0.973

	Refrigerant piping length (one way)				
	165 ft	180 ft	195 ft	230 ft	260 ft
	0.886	0.876	0.865	0.846	0.829

	Refrigerant piping length (one way)				
	165 ft	180 ft	195 ft	230 ft	260 ft
	0.973	0.970	0.967	0.961	0.955

Outlet Air Speed and Coverage Range*

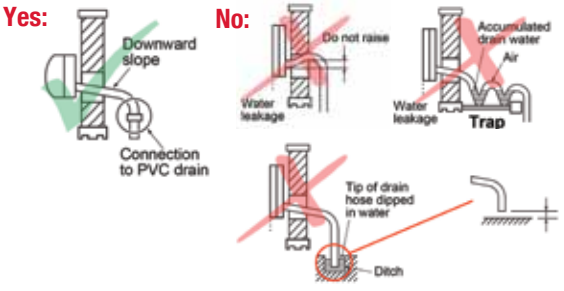
Model	Air Flow (CFM)	Air Speed (ft/sec)	Coverage Range (ft)
PLA-A12BA4	530	8.5	13
PLA-A18BA4	640	10.5	15
PLA-A24BA4	640	10.5	15
PLA-A30BA4	740	12.1	18
PLA-A36BA4	1060	17.4	26
PLA-A42BA4	1090	17.7	26
PKA-A12HA4	425	20.0	35
PKA-A18HA4	425	20.0	35
PKA-A24KA4	775	19.7	47
PKA-A30KA4	775	19.7	47
PKA-A36KA4	920	22.3	53
PCA-A24KA4	670	10.2	32
PCA-A30KA4	705	10.5	33
PCA-A36KA4	990	11.8	41
PCA-A42KA4	1,025	12.1	42

*Air coverage represents the distance with 0.8 ft/sec air speed when blowning out horizontally from the unit operating at the High fan speed. This is only a general guideline; actual coverage depends on size and layout of the room.

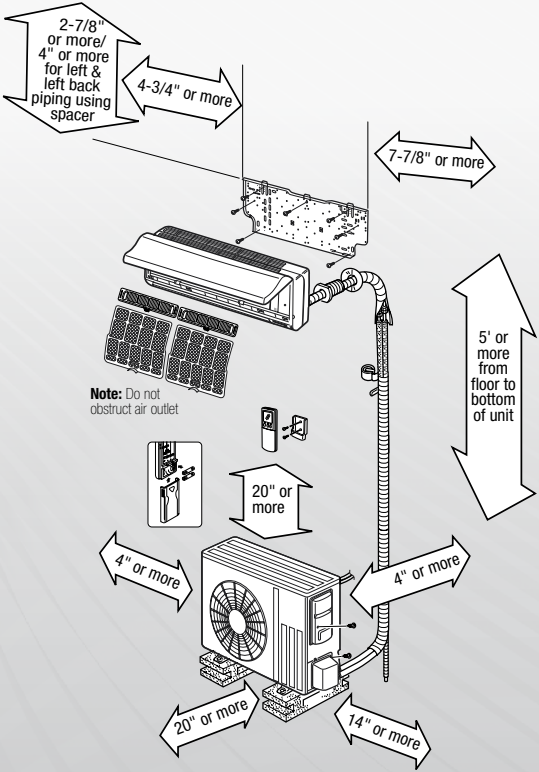
Required Tools for Installation

- Phillips screwdriver
- Pipe cutter with reamer
- Level
- Flaring tool
- Scale
- Nitrogen
- Utility knife or scissors
- Vacuum pump
- Micron gauge
- 3" (75mm) hole saw
- Charge hose for R410A
- 1/4"-5/8" torque wrench
- Gauge manifold for R410A
- 5/32" (4mm) hexagonal wrench
- Adjustable wrenches

Condensate Drain Pipe Installation



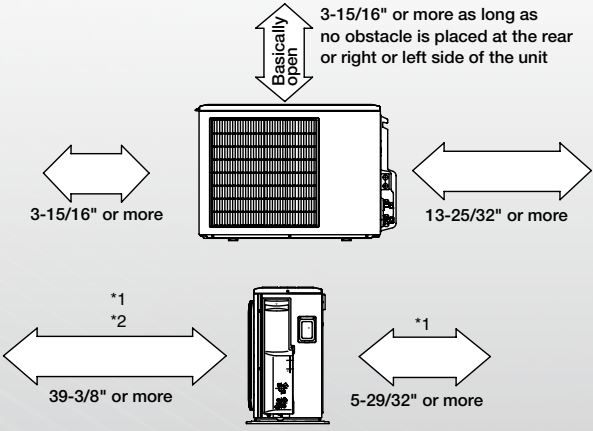
M-Series Wall-mounted System Clearances


2-7/8" or more/ 4" or more for left & left back piping using spacer
4-3/4" or more
7-7/8" or more
5' or more from floor to bottom of unit
Note: Do not obstruct air outlet
20" or more
4" or more
4" or more
20" or more
14" or more

Applies to all M-Series models except MXZ-8B48NA.
Check installation instructions for your exact model.

P-Series Outdoor System Clearances

To illustrate the space required around the outdoor unit, the required clearances for all P-Series models are shown below. See installation manual for the exact minimum clearances achievable for your model.


Basically open
3-15/16" or more as long as no obstacle is placed at the rear or right or left side of the unit
3-15/16" or more
13-25/32" or more
*1
*2
39-3/8" or more
*1
5-29/32" or more
2 sides should be open in the right, left and rear side.

Minimum installation space for outdoor unit

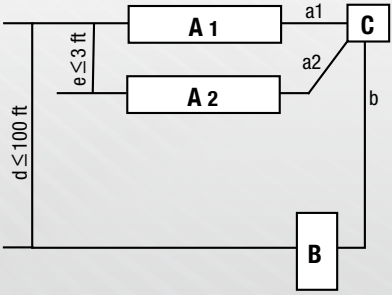
*1 In a place where short cycling can occur, cooling and heating capacity will decrease and power consumption will increase by 10 percent. Air outlet guide (optional PAC-SG58SG-E) will help improve.

*2 If air is discharged to the wall, the surface might discolor.

Installing Refrigerant Piping

For “Twinning" indoor units for better airflow coverage in a large or L-shaped room (For A24/A36, and HA36 outdoor units only)

Refrigerant piping limitations of length, height difference are shown in the figure below.



Max. length, PUY/PUZ-A24/36NHA systems:

$$a1 + a2 + b \leq 165 \text{ ft}$$

Max. length, PUZ-HA36NHA hyper-heating systems:

$$a1 + a2 + b \leq 245 \text{ ft}$$

Key:

A = Indoor unit

B = Outdoor unit

C = Multi distribution pipe (option)

d = Height difference (Indoor unit-Outdoor unit) Max. 100 ft.

e = Height difference (Indoor unit-Indoor unit) Max. 3 ft.

How to Check for Refrigerant Restriction:

1. Verify the refrigerant charge.
   - Remove the charge and weigh it back in.
   - Make sure the system has the refrigerant amount specified for the line length (see Service Manual).
2. Measure for temperature differences across evaporator.
   - Set unit operation to cooling and change temperature set point to lowest degree available, or switch system to emergency COOL mode.
   - Change fan operation to high speed.
   - Run system for five minutes, and then measure both the entering and leaving air temperatures with a thermometer.
   - The temperature differential should be around 20° F to 23° F (see Service Manual).

Assuming you have verified the charge, a difference of less than 20° F means the system is restricted.

A difference of 23° F or more usually means low air flow, often because dirt has built up on the fan blades. Clean the fan and coil and check temperatures again.

Note: When testing the system, remember to change the fan operation to high speed and verify that the unit is charged with the proper amount of refrigerant.

- Indoor unit power is supplied from the outdoor unit.
- On M-Series models, use AWG-14-3 600 VAC-rated copper wiring between outdoor unit and indoor unit for high voltage and controls circuits.
- On P-Series models, use AWG-16-3 600 VAC-rated copper wiring between outdoor unit and indoor unit for high voltage and controls circuits.
- If larger gauge wiring is required by code – use that on S1 and S2 terminals while using proper wire size on S3 communication terminal (16 gauge on P-Series and 14 gauge on M-Series).
- Two types of connection patterns, for 1:1 system and for P-Series “twin" operation (“twinning") are shown in the diagrams at right.

Key:

A = Outdoor unit power supply

B = Wiring circuit breaker or isolating switch

C = Outdoor unit

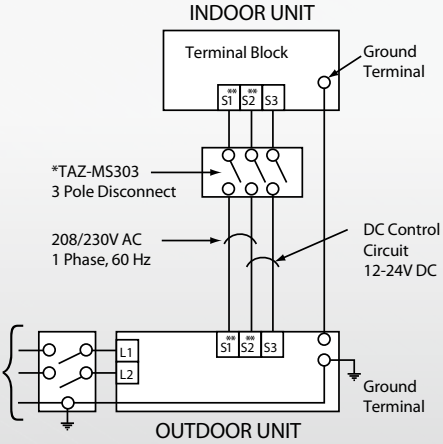
D = Indoor unit/Outdoor unit connecting wiring

E = Remote control

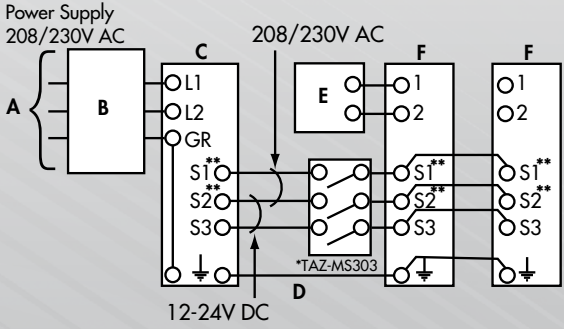
F = Indoor unit

Note: All wiring shall comply with NEC and local electrical codes. See unit installation manual for details.

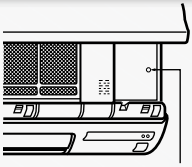
Notes:
* A disconnect switch may be required at indoor unit.
** Use a ring tongue terminal if AWG12 wire is used.



"Twinning" Operation



Test Run



Emergency operation switch (E.O. SW)

1. Turn power on to outdoor unit.
2. Press the emergency operation button once. The test will run for 30 minutes. If the LED light blinks every 0.5 seconds, verify the indoor/outdoor connecting wire is installed properly. After the test run, the emergency COOL mode (75°F) will operate.
3. To stop operation, press the emergency operation button several times until all LED lights turn off. See operation manual for details.

Checking the Remote (Infrared) Signal Reception

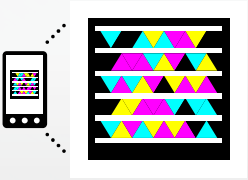
1. Press the ON/OFF button on the remote controller and listen for a beep from the indoor unit.
2. Press the ON/OFF button again to turn the air conditioner off.
3. After the compressor stops in the outdoor unit, the restart prevention device will activate. This causes the compressor to stop operation for three minutes, which protects the air conditioner.

Caution:

After finishing the test run or checking the remote (infrared) signal reception, use emergency operation button or remote controller to turn unit off before turning power supply off. If this sequence is not followed properly, the unit will start operating automatically when the power supply resumes.

Need help when you are on the jobsite?

Check out www.mylinkdrive.com
Here you can find: service bulletins, FAQs, Guide Specs, Install Manuals, MSDS sheets, Operation Manuals, Parts Lists, Service Manuals, Submittals, Accessories and the M&P troubleshooter



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Auto Restart Function:

Mitsubishi Electric split systems are equipped with an auto restart function. If the power shuts off while the system is operating (blackouts, etc.), the system will automatically resume operation at the previous setting after the power resumes. If the end user prefers not to use this function, a service representative can deactivate it. See Operation Manual for details.

Necessary End User Information:

After installation, show the end user how to operate the air conditioner, remote controller and remote controller holder, remove the air filter, cleaning methods, operating precautions, etc. Recommend that the end user read the Operation Manual.

Continuous Fan Operation:

Explain to the end user that the indoor unit fan is designed to continuously run air across the filters. A sensor also constantly measures room temperature to maintain set point. These functions help improve air quality and reduce wear and tear on the fan motor.

Ducting Considerations for the PEA/PEAD/SEZ Horizontal Ducted Indoor Unit

With the introduction of ducted indoor unit products, some information on duct selection and design seems appropriate. Considering the performance and design of these indoor units, selection and proper duct sizing and installation will be necessary for satisfactory operation.

The maximum available static pressure from the PEA and SEZ indoor units is 0.2 in. W.G. and for the PEAD indoor units 0.6 in. W.G.

Most of the static pressure duct loss comes from allowing the duct work to sag. Allowing even a 30 percent sag in the ductwork can increase the static pressure loss up to eight times. Flexible ductwork runs should be kept to less than 15 ft.

Air Flow (CFM)	50	100	150	200	250
Grille Size (In. x In.)	6x6	6x6	8x6	10x6, 8x8	12x6, 10x8

Inches of Static Pressure Loss per 100 ft. of hard duct				
	4"ø	6"ø	8"ø	10"ø
50 CFM	0.15	0.02	-	-
100 CFM	0.6	0.08	0.02	-
150 CFM	-	0.2	0.04	-
200 CFM	-	0.3	0.08	0.02
250 CFM	-	0.45	0.11	0.04
500 CFM	-	-	0.4	0.15

LIMITED WARRANTY INFORMATION

MITSUBISHI ELECTRIC

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EFFECTIVE JULY 4, 2009

All Mitsubishi Electric Split Air-conditioners and Heat pumps are covered by a Limited Warranty, which includes a five-year warranty on parts and a seven-year warranty on the compressor *(7 & 7 Warranty reserved for Mitsubishi Electric Diamond Contractors)*. Equipment must be installed by a licensed HVAC contractor for warranty coverage to apply. The full text of this Limited Warranty is available on the Mitsubishi Electric website (http://www.mitsubishicomfort.com/en/consumer/consumer-resources/warranty-statement).

The Limited Warranty gives the owner specific legal rights and the owner may also have other rights that vary from state to state. Some states do not allow limitations on warranties or exclusions or limitation of damages, so the specified limitations or exclusions may not apply. This Limited Warranty is valid only in the continental United States, Alaska and Hawaii and is not transferable.

For more information, contact:

Inside Sales: 866-323-4822
Service: 877-391-5550
M- and P-Series Applications: 800-433-4822 (press 3)
Parts: 678-376-2940
Web: http://www.mitsubishipro.com

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Specifications subject to change without notice.